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Marshall, Gerstein & Borun LLP (Newell)
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6300 Willis Tower
Chicago, IL 60606

EXAMINER

LIANG, LEONARD S

ART UNIT	PAPER NUMBER
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2853

NOTIFICATION DATE	DELIVERY MODE
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03/03/2011

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mgbdoCKET@marshallip.com

Office Action Summary	Application No. 10/540,541	Applicant(s) VANDERMEULEN, KRIS	
	Examiner LEONARD S. LIANG	Art Unit 2853	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 November 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 110-122 and 126-138 is/are pending in the application.
- 4a) Of the above claim(s) 115-121, 126, 128, 129, 131 and 134-136 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 110-114, 122, 127, 130, 132, 133, 137 and 138 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 November 2010 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Claims 115-121, 126, 128-129, 131, and 134-136 remain withdrawn from consideration.

Specification and Drawings

The drawings filed on 11/22/10 are approved.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

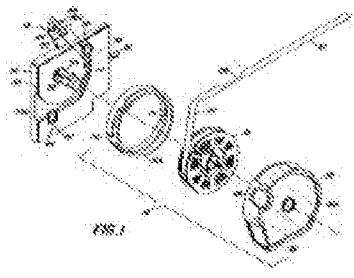
Claim 127 is rejected under 35 U.S.C. 102(b) as being anticipated by Bunting (US Pat 3394901).

Bunting discloses:

- {claim 127} a cassette comprising a hollow spool for holding a recording medium, the cassette further comprising a sprocket disposed inside at least a part of the spool and driveable to rotate the spool for unwinding recording medium therefrom, wherein a surface of the sprocket in contact with an interior surface of the spool comprises a plurality of protrusions that bear on the inside surface of the spool to provide an interference fit

Art Unit: 2853

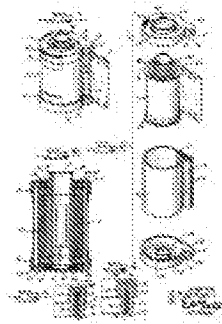
with the spool (figure 1, reference 24; note protrusions on hollow spool of reel 18; "interference fit" is not a common enough term of art to warrant the applicant's narrow interpretation. Bunting discloses an interference fit in that the fit interferes with the normal motion of the spool as a result of the fit. Broadest reasonable interpretation are given to the claims.)



Claim 113 is rejected under 35 U.S.C. 102(b) as being anticipated by Kinloch (US Pat 2153573).

Kinloch discloses:

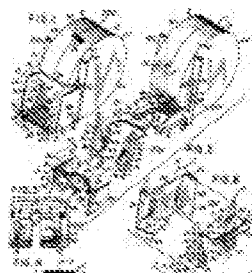
- {claim 113} A cassette for a recording medium comprising an exit region for recording medium (figures 1-2), and first and second flanges disposed at the exit region (figure 2, references 32 and 10; abstract), each flange comprising one or more grooves adapted to receive an edge of a recording medium and allow the edge to pass along the grooves (figure 1, references 15, 18)



Claim 113 is rejected under 35 U.S.C. 102(b) as being anticipated by Lerner (US Pat 3009618).

Lerner discloses:

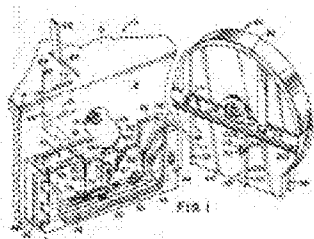
- {claim 113} A cassette for a recording medium comprising an exit region for recording medium (figure 2), and first and second flanges disposed at the exit region (figure 2, reference R), each flange comprising one or more grooves adapted to receive an edge of a recording medium and allow the edge to pass along the grooves (figure 2, reference 10)



Claim 114 is rejected under 35 U.S.C. 102(b) as being anticipated by Bundschuh (US Pat 3547373).

Bundschuh discloses:

- {claim 114} a cassette for a recording medium comprising a casing (figure 1, reference 90), wherein one region of the casing has a rib on its exterior surface (figure 1, references 100 and 102 and horizontal rib near reference 202), which rib is adapted to slide in a groove of a device in which the cassette can be inserted (column 4, lines 4-22), the rib comprising a projection (figure 1, reference 100b) adapted to latch into a detent of a device in which the cassette can be inserted (figure 1, reference 60a; column 4, lines 4-22; reference 100b is broadly construed to serve as projection of rib 100)



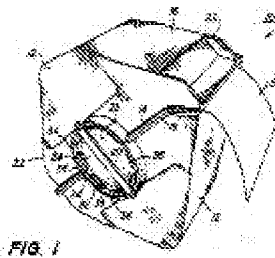
Claim 130 is rejected under 35 U.S.C. 102(b) as being anticipated by Johanson et al (US Pat 4756418).

Johanson et al discloses:

- {claim 130} A cassette for use with a printer (figure 1, reference 10; The phrase "for use with a printer" is not given much patentable weight because it is an intended use limitation. However, the disclosed cassette is directed to webs of photographic film and paper and such materials are known to be used with printers), the cassette comprising one or more ribs on an outside surface of the cassette, at least one of the ribs being

Art Unit: 2853

substantially channel-shaped, wherein at least one of the legs of the channel-shape is disposed at an angle of greater than 90.degree to the base of the channel-shape (figure 1, reference 14 is broadly construed to be the rib, and the leg part near reference 16 is construed to be the leg. Note that the leg is disposed at an angle of greater than 90 degrees in relation to the channel shaped rib 14)



Claims 132 is rejected under 35 U.S.C. 102(b) as being anticipated by Inakoshi et al (US Pat 5853254).

Inakoshi et al discloses:

- {claim 132} a recording medium cassette comprising a casing and having a wound roll of recording medium disposed in the casing which roll can unwind such that an end of the recording medium can exit the casing (figure 5A), wherein the cassette further comprises a leaf spring disposed on the casing and oriented to act on the recording medium to exert a force in a direction towards the center of the roll of recording medium (column 2, lines 40-54; column 4, lines 35-40; claim 2; Inakoshi et al discloses a leaf spring placed between the end of the ribbon roll and the cartridge case. In

Art Unit: 2853

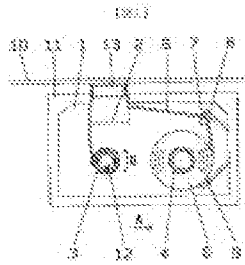
such a scenario, the leaf spring would be oriented to act on the recording medium to exert a force in a direction towards the center of the roll of recording medium)

Claims 132 is rejected under 35 U.S.C. 102(b) as being anticipated by Nishitani et al (JP Pat 06040130 A).

Nishitani et al discloses:

- {claim 132} a recording medium cassette comprising a casing and having a wound roll of recording medium disposed in the casing which roll can unwind such that an end of the recording medium can exit the casing, wherein the cassette further comprises a leaf spring disposed on the casing and oriented to act on the recording medium to exert a force in a direction towards the center of the roll of recording medium (figure 1, reference 8 and 9; because Nishitani et al features a take-up roll and a supply roll, there is technically no "end" of the recording medium.

However, the examiner broadly assigns any arbitrary location on the ink ribbon as an "end". Although this end is eventually taken back into the casing, it also exits the casing; note the both leaf springs 8 and 9 contact the medium and are directed toward the center of the roll.)



The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

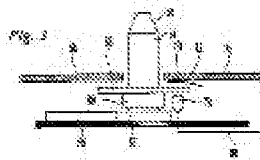
Claims 138 is rejected under 35 U.S.C. 102(e) as being anticipated by Day et al (US Pat 6812943).

Day et al discloses:

- {claim 138} An ink ribbon cassette comprising: a hollow supply spool for holding a roll of ink ribbon; and a driveable sprocket at least part of which is disposed inside the supply spool to rotate the supply spool for rewinding unwound ribbon onto the supply spool (figures 2-3; column 9, lines 9-26), wherein the end of the sprocket that is not disposed inside the supply spool comprises an inner cylinder (figure 3, reference 68) and an outer cylinder (figure 3, reference 62), the inner cylinder extending further in an axial direction away from the supply spool than the outer cylinder so

Art Unit: 2853

as to bear against a biasing element of the ink ribbon cassette (figure 3; note that the inner cylinder's edge extends further away from the axis through sprocket 54 than the edge of the outer cylinder. Note also that the inner cylinder bears against the base of sprocket 54, which is construed to be a biasing element of the ink ribbon cassette. Therefore, the inner cylinder extends further in an axial direction away from the supply spool than the outer cylinder so as to bear against a biasing element of the ink ribbon cassette. Note also the attached definition of axial.)



Claim Rejections - 35 USC § 103

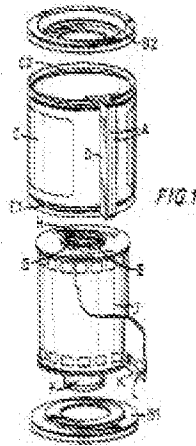
The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 110-112 and 127 are rejected under 35 U.S.C. 103(a) as being unpatentable over Coote et al (US Pat 4744527) in view of Sangregory (US Pat 5812884).

Coote et al discloses:

- {claim 110} a cassette for a recording medium (figure 1), comprising an upper casing (figure 1, reference 82) and a lower casing (figure 1, reference 81), a spool for holding a roll of recording medium and disposed between the upper and lower casings (figure 1, reference E), and a side casing for enclosing the spool and joining the upper and lower casings (figure 1, reference C), wherein the side casing is fitted to at least one of the upper and lower casings by press-fit or snap-fit connections (figure 1; abstract; column 4, lines 30-36; column 5, lines 3-14); wherein the upper and lower casings and the spool each have a substantially central through-hole which are substantially aligned between the parts (figure 1)



- {claim 111} wherein the upper and lower casings comprise grooves and/or protrusions and the side casing comprises corresponding protrusions and/or grooves for effecting the press-fit or snap-fit connections (figure 1, reference B1, C1, B2, C2)

Art Unit: 2853

- {claim 112} wherein the upper and lower casings and the side casing have a generally circular configuration, and comprise an exit area through which a recording medium disposed on the spool can exit (figure 1, reference D)
- {claim 127} a cassette comprising a hollow spool for holding a recording medium, and driveable to rotate the spool for unwinding recording medium therefrom (figure 1, reference E)

Coote et al differs from the claimed invention in that it does not disclose:

- {claim 110} the cassette further comprising a drivable socket disposed in the through-hole of one of the upper and lower casings and dimensioned to extend into the through-hole in the spool for rotating the spool
- {claim 127} a sprocket disposed inside at least a part of the spool, wherein a surface of the sprocket in contact with an interior surface of the spool comprises a plurality of protrusions that bear on the inside surface of the spool to provide an interference fit with the spool

Sangregory discloses:

- {claim 110} the cassette further comprising a drivable socket disposed in the through-hole of one of the upper and lower casings and dimensioned to extend into the through-hole in the spool for rotating the spool (figure 1, references 48 and 50; column 4, lines 9-11)
- {claim 127} a sprocket disposed inside at least a part of the spool, wherein a surface of the sprocket in contact with an interior surface of the spool comprises a plurality of protrusions that bear on the inside surface

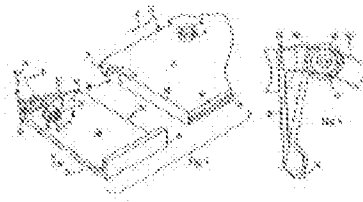
of the spool to provide an interference fit with the spool (figure 1, references 48 and 50; column 4, lines 9-11)

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the teachings of Sangregory into the invention of Coote et al. The motivation for the skilled artisan in doing so is to gain the benefit of rotationally engaging the spool.

Claim 122 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dobring et al (US Pat 4822189).

Dobring et al discloses:

- {claim 122} a cassette adapted to be received in a printing device (figure 1, reference 2; column 1, lines 5-7), the cassette comprising one of a ramp and a resiliently moveable portion capable of interacting with the other of a ramp and a resiliently moveable portion of a printing device (figure 1, reference 30 shows ramp; figure 1, reference 22 shows resiliently movable portion), such that during insertion of the cassette the ramp causes movement of the resiliently moveable portion from a position in which it would otherwise prevent insertion of the cassette into a position allowing insertion of the cassette (column 3, lines 15-30)



Dobring differs from the claimed invention in that it does not disclose:

- {claim 122} the cassette comprises the resiliently moveable portion and the printing device comprises the ramp

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the design of Dobring, so that the cassette comprises the resiliently moveable portion and the printing device comprised the ramp. The concept of a resiliently moveable portion on one object and a recess on another object to receive the moveable portion is a well known latching mechanism used across many fields. This particular latching mechanism is not affected by the structure of which object contains the moveable portion and which object contains the recess. The ramp is also a known mechanism to assist movement in the latching process. It would have been an obvious design choice to switch the location of the ramp and resiliently moveable portion in Dobring.

Claim 133 is rejected under 35 U.S.C. 103(a) as being unpatentable over Coote et al (US Pat 4744527) in view of Okuchi et al (US Pat 5492282).

Coote discloses:

- {claim 133} a cassette for holding a recording medium, each cassette comprising an upper portion and a lower portion disposed apart a distance and joined together by attachment to a side portion having a width corresponding to the distance, thereby enabling a roll of recording medium to be held between the upper and lower portions with the width of the recording medium being oriented substantially parallel to the width of the side portion (figure 1; abstract)

Coote differs from the claimed invention in that it does not disclose:

- {claim 133} a set of cassettes, wherein each cassette has a side portion of a different width, wherein the upper and lower portions of each cassette within the set are interchangeable with the upper and lower portions of different cassettes within the set

Okuchi et al discloses:

- {claim 133} a set of cassettes, wherein each cassette has a side portion of a different width (abstract)

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the teachings of Okuchi et al into the invention of Coote. The motivation for the skilled artisan in doing so is to gain the benefit of providing for a set of cassettes with different widths. It is clear from Coote et al that the upper and lower portions B1 and B2 are interchangeable with other upper and lower portions, regardless of how wide the side portion is; the width of the side portion does not factor in to the fit of B1 and B2 to C1 and C2.

Claim 137 is rejected under 35 U.S.C. 103(a) as being unpatentable over Day (US Pat 6812943) in view of Nishitani et al (JP Pat 06040130 A).

Day discloses:

- {claim 137} An ink ribbon cassette (figure 2, reference 24) comprising: a supply spool for holding a roll of ink ribbon (figure 2, reference 46); a take-up spool onto which ink ribbon unwound from the supply spool is wound (figure 2, reference 48); a driveable sprocket arranged to rotate the supply spool for rewinding unwound ribbon onto the supply spool (figure 3, reference 54)

Day differs from the claimed invention in that it does not disclose:

- {claim 137} a spring disposed to act axially on the sprocket for maintaining tension of the ink ribbon between the supply and take-up spools

Nishitani et al discloses:

- {claim 137} a spring disposed to act axially on the sprocket for maintaining tension of the ink ribbon between the supply and take-up spools (abstract; figure 1, references 8-9)

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the teachings of Nishitani et al into the invention of Day. The motivation for the skilled artisan in doing so is to gain the benefit of applying appropriate tension to the ink ribbon.

Response to Arguments

Applicant's arguments with respect to claims 110-114, 122, 127, 130, 132-133, and 137-138 have been considered but are moot in view of the new ground(s) of rejection.

With respect to claim 114, the examiner has specifically cited above that reference 100b is broadly considered a projection of rib 100. In the applicant's arguments, the applicant applied an overly narrow interpretation of the word "projection." Broadly speaking, every rib comprises a projection because there is a portion that projects outward from the surface.

With respect to claim 127, the applicant argues that the spindle of Bunting is part of the projector and not part of the cassette. The applicant is improperly narrowing the scope of the word cassette. The side of Bunting that includes the spindle does serve as one side of the projector, but it also serves as one side of the cassette. The two are not mutually exclusive notions. Functionally, the spindle side must be considered part of the cassette because it closes the cassette off. The applicant also applied an overly narrow interpretation of the phrase "interference fit." The examiner's interpretation of the phrase is explained above.

With respect to claim 138, the examiner's rationale is explained above. In light of the attached definition of "axial," the applicant's interpretation of "axially" is overly narrow.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Oi et al (US Pat 5174519) discloses a film cassette.

Moss et al (US Pat 4586803) discloses a developing drum.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LEONARD S. LIANG whose telephone number is (571)272-2148. The examiner can normally be reached on 8:30-5 Monday-Friday.

Art Unit: 2853

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier can be reached on (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/L. S. L./
Examiner, Art Unit 2853
02/26/11

/Stephen D Meier/
Supervisory Patent Examiner, Art Unit 2853